(c) The studies conducted on health effects of bio-mass smoke indicate that the incidence of smoke related diseases is higher in rural houses using biomass fuels in traditional chulhas. However, quantified conclusions have not been drawn from such studies as there are many other risk factors for such diseases which are difficult to account for.

(d) To improve the quality of life of rural women and also to reduce the incidence of smoke related diseases in them, the Central Govt. is implementing two National programmes viz. National Programme on Improved Chulhas and National Project on Biogas Development through the State Government Nodal Departments and Agencies. The two programmes provide for Central subsidy to beneficiaries for installation of improved chulhas and biogas plants respectively besides other incentives. Under the above programmes, 157.05 lakh chulas and 18.68 lakh biogas plants have so far been set up in the country.

**Permission to cane-growers to use alcohol as fuel for vehicles**

1472. SHRI BHUPINDER SINGH MANN : Will the PRIME MINISTER be pleased to state :

(a) whether Government are considering to allow use of alcohol to the cane-growers who want to use their own production as alternative fuel for vehicles; and

(b) if so, the details thereof and if not, the reasons therefor ?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR) : (a) No, Sir.

(b) Ethyl Alcohol produced in the country presently from molasses is almost entirely used as chemical feed stock and for production of potable alcohol. Its custody and usages is now entirely under the jurisdiction of the State authorities.

**Strategy adopted to harness solar energy**

1473. SHRI GOVINDRAO ADIK : Will the PRIME MINISTER be pleased to state :

(a) whether it is a fact that in a WHO-sponsored workshop, the need to tap the abundant source of solar energy in India was stressed in view of the fact that India lies in the sunny region and receives four to seven kilowatt hour (KWH) of solar radiation per square metre per day with 250 to 300 clear a sunny days a year ;

(b) if so, the details thereof ; and

(c) what strategy Government have so far adopted or propose to adopt for harnessing the vast source of solar energy ?

THE MINISTER OF IN THE MINISTRY OF NON CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR) : (a) and (b) Yes Sir. WHO sponsored a workshop on "Harnessing of Solar Energy and Designing Energy efficient Buildings in the Health Sector" at National Institue of Health and Family Welfare, New Delhi during January 10 to 14, 1994, in association with the Ministry of Health. This work shop concentrated on use of solar energy in health sector for variety of applications such as water heating, lighting, medical refrigeration, water pumping, powering of medical equipment and solar incubator and design of buildings using solar passive architecture etc.

(c) Yes, Sir. The Ministry of Non-Conventional Energy Sources have planned plans for harnessing solar energy through both solar thermal & solar photovoltaic routes. During the 8th plan, it is envisaged to take up installation of 11 lakh square metre of solar thermal collector are , 7 lakh nos. solar cookers, solar photovoltaic systems aggregating to 25MW and a solar thermal power plant of 30MW capacity under the new "Strategy & Action Plan" prepared by the Ministry. The steps taken include promotional policies, package of incentives, soft loans for manufacturers and users, information dissemination as well as manpower development.

**Fisheries Oceanographic Research Vessels**

1474. DR. SHRIKANT RAMCHANDRA JICKHAR : Will the PRIME MINISRER be pleased to state :

(a) whether the Fisheries Oceanographic Research Vessel 'Sagar Sampada' has been successful in exploring the deep sea fish